

NAVAL WAR COLLEGE
Newport, RI

OPERATIONAL ART'S HYPOTHETICAL IMPERATIVE:
ANALYSIS OF FORCE AND WILL

by

Daniel E. Liddell
Major, U.S. Marine Corps

A paper submitted to the Faculty of the Naval War College in Partial satisfaction of the requirements of the Joint Military Operations Department. The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

Signature: _____

D E Liddell

DISTRIBUTION STATEMENT A	
Approved to	the release
Excluded to	the release

7 February 1997

DTIC QUALITY INSPECTED 4

Paper Directed by
Chairman, Joint Military Operations Department

19970520 181

REPORT DOCUMENTATION PAGE

1. Report Security Classification: UNCLASSIFIED	
2. Security Classification Authority:	
3. Declassification/Downgrading Schedule:	
4. Distribution/Availability of Report: DISTRIBUTION STATEMENT A: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.	
5. Name of Performing Organization: JOINT MILITARY OPERATIONS DEPARTMENT	
6. Office Symbol: C	7. Address: NAVAL WAR COLLEGE 686 CUSHING ROAD NEWPORT, RI 02841-1207
8. Title (Include Security Classification): OPERATIONAL ART'S HYPOTHETICAL IMPERATIVE: ANALYSIS OF FORCE AND WILL (U)	
9. Personal Authors: MAJOR DANIEL E. LIDDELL, USMC	
10. Type of Report: FINAL	11. Date of Report: 7 FEB 1997
12. Page Count: 24	
13. Supplementary Notation: A paper submitted to the Faculty of the NWC in partial satisfaction of the requirements of the JMO Department. The contents of this paper reflect my own personal views and are not necessarily endorsed by the NWC or the Department of the Navy.	
14. Ten key words that relate to your paper: WILL, POWER OF RESISTANCE, TOTAL MEANS, PLANNING, COMMANDER'S ESTIMATE OF THE SITUATION, CONCRETE FACTORS, ABSTRACT FACTORS, CENTER OF GRAVITY, CULMINATING POINT, SCHWERPUNCT, PRINCIPLES OF WAR.	
15. Abstract: "IF YOU WANT TO OVERCOME YOUR ENEMY YOU MUST MATCH YOUR EFFORT AGAINST HIS POWER OF RESISTANCE", CLAUSEWITZ. THIS POWER OF RESISTANCE IS THE PRODUCT OF TWO INSEPARABLE FACTORS: TOTAL MEANS AT THE ENEMY'S DISPOSAL; THE STRENGTH OF THE OPPONENT'S WILL. BECAUSE THE CONCEPT OF WILL HAS AN INTANGIBLE NATURE, MILITARY PLANNERS OFTEN DIMINISH IT'S IMPORTANCE IN OPERATIONAL PLANNING. THE OPPONENT'S MEANS ARE TANGIBLE, MEASURABLE, AND QUANTIFIABLE, AND THUS BECOME THE OVER ZEALOUS YARDSTICK IN DETERMINING THE POWER OF RESISTANCE. HISTORY HIGHLIGHTS THE IMPORTANCE OF PLANNING FOR BOTH FACTORS ACROSS THE SPECTRUM OF CONFLICT. THE COMMANDER, USING HIS EXPERIENCE, LEADERSHIP, AND JUDGMENT, MUST FORMULATE THE "TOTAL" ASSESSMENT (MEANS AND WILL) IN ORDER TO TRULY EXCEL AT THE OPERATIONAL ART.	

16. Distribution / Availability of Abstract:	Unclassified X	Same As Rpt	DTIC Users
17. Abstract Security Classification: UNCLASSIFIED			
18. Name of Responsible Individual: CHAIRMAN, JOINT MILITARY OPERATIONS DEPARTMENT			
19. Telephone: 841-6461		20. Office Symbol: C	

Security Classification of This Page Unclassified

ABSTRACT

**"If you want to overcome your enemy you must match
your effort against his power of resistance."**

Clausewitz

The power of resistance is thought to be a product of two inseparable factors: total means at the opponent's disposal; the strength of the opponent's will. The concept of "will" has an abstract nature and military planners often diminish it's importance in relation to the more concrete aspects of warfare. The opponent's means are tangible, measurable, and quantifiable and thus become the over zealous yardstick in determining the power of resistance. Clausewitz cautioned that these two factors were inseparable. History highlights the importance to plan for both factors across the spectrum of conflict. The Commander, using his experience, leadership, and judgment, must formulate the "total" assessment (means and will) of the opponent in order to truly excel at Operational Art.

PREFACE

Seeking a solution to the role of will in Operational Art, is similar to trying to satisfy an unquenchable thirst. As such, there are some assumptions for the reader before the start of this query. First, it is important to interpret the term "will." For the purposes of this paper, will is used to represent the intangible and abstract characteristics of morale, esprit, leadership, training, cohesion as well as other non-physical factors of force. Second, this is not a paper that seeks to determine a value for the assessment of will. It seeks only to highlight that the assessment of will is invaluable. Third, this paper emphasizes the importance of intangible factors towards the assessment of combat effectiveness. It should not be assumed that the argument superimposes the strength of will over that of physical force. This is bluntly reinforced by B.H. Liddell Hart, "the strongest will is of little use if it is inside a dead body." Last, this paper is not a recipe for what to think. It explores the methodology of how to think... viewing concepts and elements of Operational Art through two separate, yet related, paradigms.

Introduction

Arthur, King of the Britons, while searching for the Holy Grail, comes across the Black Knight prohibiting the access to a bridge. The Black Knight states, " he will move for no man, and anyone trying to pass will die." A short battle ensues and King Arthur, relatively unencumbered by armor, dodges the slow and heavy strikes of the Black Knight. After cutting off the left and right arms of the Black Knight, King Arthur commands, " stand aside worthy adversary." However, the Black Knight continues to fight by kicking King Arthur. In reciprocal action, King Arthur cuts off both legs of the Black Knight. As King Arthur rides off, the Black Knight, realizing that he can not move, calls out, "Come back here you coward and take what's coming to you, ...I'll bite your legs off!"

Scene from "Monty Python and the Holy Grail"

Although this humorous vignette is pure fabrication, it illustrates the illusion between the two factors Clausewitz believed to be inseparable: the total means at your opponents disposal and the strength of their will. The above scene captures the perceived dominance of each factor in the realm of operational art. Depending on the paradigm through which you choose to view this conflict (tangible means or intangible will) the perception of victory changes. Did King Arthur's physical means defeat the Black Knight's power of resistance or was the Black Knight victorious in that his "will" did not collapse? Assessing military effectiveness seems to have two perspectives.

"Will" is not purely a strategic term. Military history demonstrates that it exists at both the operational and tactical levels as well. The strength of the enemy's will needs to be examined in greater depth at the operational level of war. Through an analysis of theory and history, the commander gains a respect for the importance of non-material factors such as; esprit, cohesion, and leadership and the importance they have to military effectiveness. This sociological approach blends with military doctrine and tactical systems to develop the overall estimate of the situation. Principles of war, centers of gravity, schwerpunkts and culminating

points, all must be discussed not only in the realm of tangible, physical characteristics of force, but also within the intangible aspect of will. Neither physical force nor strength of will can be an independent factor in the planning process. Operational Art demands that military planners continuously think "outside the box." Paradigms are dangerous if the results are a "lock step" approach to the thought process. Are military commanders today examining capabilities and effectiveness through the paradigm of physical force? Throughout the current planning process (Commander's Estimate of the Situation, CES), staffs must be encouraged to identify and compare the elements of Operational Art through both the physical and behavioral vision.

Theory: The hypothetical imperative; the concept of will

The German philosopher, Immanuel Kant, used the term hypothetical imperative to describe a mandatory action to values that could be theoretically justified. In the same sense, military theory can determine whether an estimate of "will" in the planning process is a necessity. To reason, rationalize, and develop each new situation, the commander must look to the future by assessing the past. Theory is simply a synthesis of historical analysis for problem solving. It gives the commander a foundation for future response. Thus, theory becomes the point of departure to justify the importance of assessing "will" in military planning. The master of military theory, Carl von Clausewitz, had two suppositions towards the strength of will.

Clausewitz warned that in order to defeat the enemy, the product of both his total means and his strength of will must be overcome.¹ This symbiotic relationship can be identified as a formula:

$$\text{(total means) x (strength of will) = (power of resistance)}$$

One can assume from this equation that relative combat power equals the power of resistance. Thus, relative combat power can not simply be the total physical means.

The interrelationship between the factors of "means" and "will" is also of importance. Although these two factors are encapsulated in the product representing resistance, they are not independent of one another. Clausewitz has a second supposition that explained this relationship:

"War is an act of force to compel our enemy to do our will!"²

In this premise, force becomes an extension of will. Clausewitz stipulates that force in this example is physical force. Therefore, physical force originates from the strength of will.

strength of will \longrightarrow physical force

By combining these two assumptions, students of operational art may extrapolate three possible eventualities. These three outcomes describe the possible end states to a conflict between two opposing forces:

1. If the opponent's will is defeated, then by extension, his physical force is defeated.

The result is victory over the opponent's power of resistance.

2. If the opponent's physical force is defeated, the opponents will may be subdued as well. The result is victory over the power of resistance, or

3. Defeating physical force does not influence the overthrow of will. Will is not foiled and the power of resistance is not defeated. †

† In both the second and third extrapolation, the *power of resistance* has different values. Victory is achieved only if the defeat of physical force diminishes the strength of will in kind.

The first outcome originates from a direct approach. The strength of the opponent's will is overcome before the use of physical force. Said another way, force was never generated by the opponent because his will (source of his physical strength) was defeated beforehand. Sun Tzu remarked that this example was the highest form of operational art.

*"For to win one hundred victories in one hundred battles is not the acme of skill. To subdue the enemy without fighting is the acme of skill"*³

*"Those skilled in war subdue the enemy's army without battle. They capture his cities without assaulting them and overthrow the state without protracted operations."*⁴

This first example generally occurs in the realm of diplomacy, deterrence or operations other than war, where the mere threat, influence, or show of force leads to the downfall of will.

The second and third outcomes originate from an indirect approach. The defeat of physical force struggles to influence the defeat of will. In the third example the strength of will is not swayed by the defeat of force. Triumph over the enemy's power of resistance is not achieved. Thus, to answer the original question of why opponent's will is an important planning factor becomes obvious. If defeat is possible, even when the opponent's physical force is overpowered, military planning towards an opponent's will is compulsory. It becomes a hypothetical imperative.

The counter argument to the presumption that assessing opponent's will is a hypothetical imperative rests with the notion that the opponent's will is always assessed at one hundred percent. By assuming one hundred percent, planners develop a so-called "safety margin of error" in respect to the factor of will. This obliges the Commander to plan for all possible courses of action the enemy would have an inclination to execute. This counter argument has three flaws.

First, is the problem of infinite courses of action when assuming one hundred percent. Commander's must narrow the variables by ascertaining likely, probable, or most dangerous enemy courses of action. Having too many courses of action is as much a problem as having no course of action. Narrowing the multitude of viable options demands analysis of the abstract factors of "will." Commanders need this analysis to differentiate between options. Second, this counter argument degrades the significance of will as a planning factor by making it a constant. There are many differences in leadership, training, esprit, and perseverance among forces. A comparison of these qualities helps to determine the contrast in overall power of resistance. Third, a safety margin can never be assumed if force does not have the unilateral ability to defeat will. As stated before, military planning towards an opponent's will is compulsory if defeat is possible, in spite of the fact that the opponent's physical force is overpowered.

The thesis of this paper bases its rationale on this hypothetical imperative. The extrapolation of three possible outcomes highlights the importance of trying to discern the value of the intangible nature of will in respect to physical force. Designing physical force to subdue the opponents "will" may not be the highest form of operational art according to Sun Tzu. In respect to history, however, it is certainly the most difficult to plan.

Historical perspective: The difficulty in leveraging the abstract by the concrete

Success in Operational Art is never the result of any one factor. There are many factors that influence the opponent's "power of resistance." Clausewitz's terms of physical force and strength of will broadly represent the two dimensions that combine for this resistance: concrete and abstract. Examples of concrete factors are: armed forces, command and control systems,

reconnaissance, intelligence, and logistics. Examples of abstract factors are: will to fight, leadership, public support, cohesion, flexibility of doctrine, and training.⁵

The friction between these two factors are replete throughout military history... During the Napoleonic Wars, the French Army marched into Spain and decimated the Spanish force. As was the norm in this era, Napoleon envisioned that the defeat of the enemy force would result in the demise of the Spanish will. The result, however, was quite the contrary and a new term was introduced to military jargon: Guerrilla.⁶ Although this was a transition in the level of conflict, it represents a fine example of the third outcome.[†]

General Heinz Guderian, creator of German Panzer Forces, had remarkable success with the Blitzkrieg style of warfare. Speed, synchronization, and shock defined and highlighted the three operational art factors of time, space, and forces. The French campaign, is especially useful in the analysis of physical force and strength of will. On Tuesday, May 14, 1940, Guderian with a Corps of three Panzer Divisions ripped a large gap in French defenses. Instead of consolidating the bridgehead over the river Meuse to prepare for the reserve counter thrust, he deepened the penetration, attacking west with 1. and 2. Pz. Div. along the open flat ground between Aisne and Somme.⁷ The rip separated the French and British force from their base of operations in France. The German physical force defeated it's opponent, but more importantly created perceptions of isolation, inferiority, and chaos on the battlefield. These intangibles were the seeds that blossomed into the defeat of the opponent's will and eventual French surrender.^{††}

† As mentioned earlier, the third outcome is a possible extrapolation of two points Clauswitz made in respect to will. This third possibility noted in the text is when the defeat of the opponent's force does not translate into overcoming the opponent's will.

†† Here we see an example of the second possible outcome. The opponent's force is defeated and by result of this action the opponents will is also defeated.

The breakout from the Chosin Reservoir during the Korean War by the 1st Marine Division is the counter argument to the previous Guderian example. Isolation, inferiority, and chaos did not blossom into the defeat of the Marine's will. Surrounded by five Chinese Divisions, the Marines broke through the encirclement in weather forty degrees below zero. Isolated, hammered by harsh conditions, and out numbered five to one, the cohesion and spirit of these Marines was not vanquished. In this case, physical force had great difficulty in defeating superior will.

When the Second Marine Division conducted the breach through the two belts of the Iraqi minefield in Operation Desert Storm, the expectations for casualties were great. It was perceived by the Marines that the large number of Iraqi forces were willing to fight; engagements with the covering force of Marine Light Armor Vehicle (LAV) Battalions seemed to indicate resolve.⁸ The logistics of casualty collection was a key focus for Marines during the last days before the breach. Again, however, the result of the conflict was quite different. The continual air attacks had depleted the Iraqi ground forces' "will,"⁹ and as a result, the power of resistance was not commensurate to that of the Marine Divisions it opposed. Air power was the overriding factor. Although ground forces did engage light resistance, Desert Storm is an example that force can influence "will" at the operational level.

These are but a few of the examples to indicate that opponent's will can be a key ingredient to victory or defeat. Again, history has many more examples to share with her students of operational art. Certainly, the examples presented indicate that victory can be decided by the combinations of both concrete and abstract factors. Understanding the opponent's strength of will calls the student of operational art into a deeper probe. Student's

have volumes of reference to justify will's relative importance to physical force. The vital question for the Commander is; "how do we plan for it?" Art is in the application.

Assessing the elements of Operational Art

It seems that the first step for the commander in any application towards "will" is to appreciate the fact that there are no school solutions. The dangerous mentality for any artist to develop is painting the picture by-the-numbers. Military officer training during the nineties has reinforced the appreciation of not what to think; but "how" to think.¹⁰ As seen through previous examples, sheer physical force may not always be successful. Commanders must not constrain their planning process by assessment of physical force alone. Planning must be viewed through two separate paradigms of force and will. Key elements and principles to operational art must be viewed from both perspectives. This polarity of thought is highlighted in the examination of center of gravity, culminating point, schwerpunkt, and principles of war.

The Center of Gravity

The center of gravity is an in-vogue term that is problematic when seen only through the paradigm of physical force. As one planning tool in the commander's toolbox, the center of gravity is the "hub of all power and movement on which everything depends."¹¹ Clausewitz goes on to explain that the center of gravity is always found where the mass is concentrated most densely. Additionally, he stated that it represents the most effective target for the blow.¹² When Clausewitz describes the center of gravity as "mass concentrated" he seems to envision this concept in the tangible or physical sense. This seems to run in contradiction to his premise of

"war was an act of force to do our will." In the latter case, the intangible nature of will could be seen as the hub of all power. One way, theorists justify these conflicting points is to assume that Clausewitz was simply discussing two separate levels of war; the first at the operational level, the second at the strategic. Whereas this presumption is rational, it runs contrary to all Clausewitz's fundamental principles towards the relationship of physical force and power of will in Book One. Although this contradiction is problematic, in essence it may only distinguish Clausewitz's view from two paradigms: force and will. At the time of his death, Clausewitz was in the process of re-writing the later books of "On War..." Would his discussion of the center of gravity been changed to reflect these two paradigms?

The Center of Gravity is found throughout today's military doctrine: Joint Pub 3-0, Doctrine for Joint Operations;¹³ FMFM 1-0, Warfighting;¹⁴ FM 100-5, Operations.¹⁵ Generally, military planners view the center of gravity as intangible only in the strategic sense: i.e. national will. Operationally, however, it is defined as almost always in the tangible: i.e. carrier battle group, landing forces, air component etc. The Joint Military Operations Department at the Naval War College writes: "In general the higher level of war the more intangible elements are represented in a given COG. Hence, at the tactical or operational level, the COG is almost invariably the "mass" of the enemy force with the highest mobility and combat power."¹⁶ This is an example of a dangerous mind set being presented to future military planners. It frames the COG, the primary planning tool in operational art, in the paradigm of physical force. Both theory and history have shown that there are many occurrences when the strength of will was the center of gravity at the operational or even tactical level of war.

In counter argument, the problem for staffs and educational departments is defining the intangibles accurately. An idea that is not observable and measurable (strength of will) is hard to compare against one that is (physical strength). This argument seems to represent the ever present dogmatic mentality. It stifles operational creativity on the basis that if it can't be measured it can't be planned for.

The problem is the root premise. The premise that there is only one center of gravity (physical or intangible) at any level is an error. There is only one COG if it is perceived through only one paradigm; that of force. However, the power of resistance is the product of two factors; one concrete and one abstract. Determining which factor is the hub of all power without the capacity to differentiate the concrete from the abstract is moot. It would be better to have the premise that there are two centers of gravity; one the hub of all physical force, one the hub of all "will." Consideration in attacking both centers of gravity, by direct or indirect means, makes for a superior planning process and has a better chance of success.

The Culminating Point

The Culminating Point is a prime example of how an operational commander must balance between the two paradigms of warfare. FM 100-5, Operations, defines the culminating point as:

"the point in time and space when the attacker's combat power no longer exceeds that of the defender or when the defender no longer has the ability to defend successfully."¹⁷

Again, if it is assumed that combat power is equivalent to power of resistance, the culminating point is the commander's analysis of both the opponent's physical strength and the strength of

"will." Unlike the center of gravity, Clausewitz viewed the culminating point from both perspectives of combat power:

*"In deciding whether or not to continue the engagement, it is not enough to consider the loss of men, horses and guns; one also has to weigh the loss of order, courage, confidence, cohesion, and plan."*¹⁸

There has been much written in regard to this dualistic essence of the the culminating point:

*"War is not only a contest of weapons, but also a contest of will power."*¹⁹

*"Soldiers universally concede the general truth of Napoleon's much-quoted dictum that 'in war the moral is to the physical as three to one'. The actual arithmetical proportion may be worthless ...the strongest will is of little use if it is inside a dead body. But although the moral and physical factors are inseparable and indivisible, the saying gains its enduring value because it expresses the idea of the predominance of moral factors in all military decisions"*²⁰

*"If in conclusion we consider the total concept of a victory, we find that it consists of three elements: the enemy's greater loss of material strength, his loss of moral, ...loss of intentions"*²¹

Like the discussion of the Center of Gravity, the chief "take-aways" in respect to the culminating point for this discussion are: that there are two distinct attributes to the culminating point; one concrete, one abstract; and that the Commander must assess and weigh both to ensure victory. There is no room for the Operational Commander who develops his operational design only through the paradigm of physical force.

† Clausewitz stated that his third element was simply an admission of the combination of the first two elements. Thus, only the first two are what planners need to analyze for operational design.

Schwerpunkt

The schwerpunkt is a German term that roughly translates into "point of main effort." It is where a commander believes he can achieve a decision and thus where he focuses his effort toward that regard. The schwerpunkt is normally allocated to a unit (i.e. 3rd Bn. 6th Marines is the schwerpunkt) and thus that unit becomes the focus of effort. In the Manuever Warfare Handbook , the schwerpunkt has been likened to glue. It bonds the combat power of all units together to focus on the commander's intent and mission.²² The concept is superior in that it causes synergy of action to be achieved through decentralized execution.

The problem is that this term is being viewed, like the center of gravity, through the lone paradigm of physical power. What does the schwerpunkt look like if viewed in the abstract sense? Can synergy of effort be applied as an intangible?

It could be argued that military forces have always focused on intangible schwerpunkts. Concepts like development of chaos, isolation of command or logistics, supporting legitimacy of existing government, or restraint in the use of force, can describe an intangible schwerpunkt. Military planners must not think through the one paradigm. The placement of the schwerpunkt can't be thought of in only the physical sense. Synergy of action is vital in both a concrete and abstract sense.

Principles of War

Through the spectrum of conflict, the values for will power and physical power are not constant. Although they can never be viewed independently from one another, their individual values may change. The Principles of War value terms such as Mass, Maneuver, Objective, etc.

These principles are normally thought of in the concrete sense. In contrast, the principles in Military Operations Other Than War (MOOTW) value terms such as Legitimacy, Perversence, and Restraint etc. These principles are normally thought of in the abstract sense. The students' of Operational Art could theorize that as the spectrum of conflict decreases, the power of will becomes more influential than merely its physical force.

see fig 1.

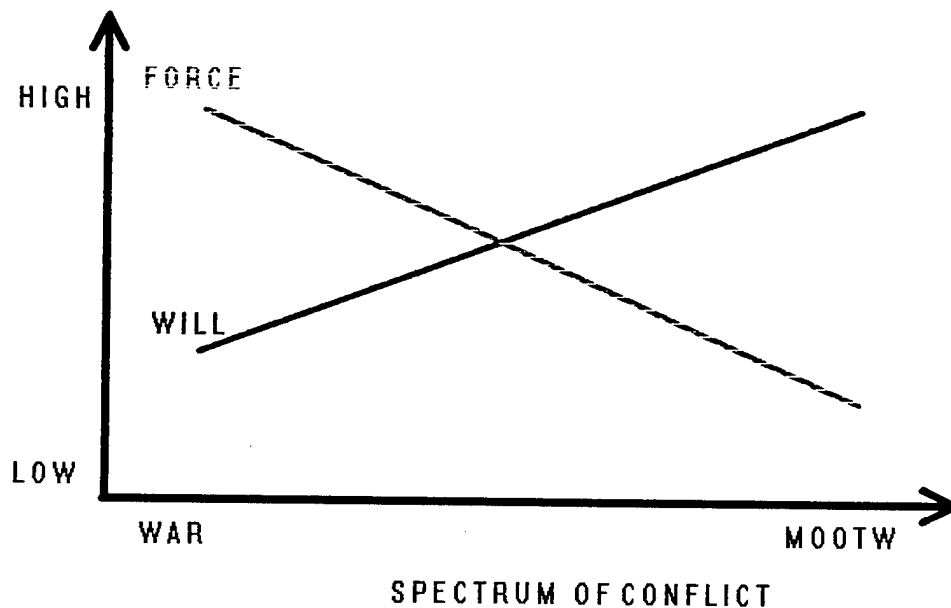


fig 1.

Again, Commanders must view war-fighting principles from both aspects. Mass can be defined by overwhelming physical power at the critical point. But, it may also be described as generating the perception of inferiority towards your opponent's volition. Similarly, maneuver can create chaos in your opponent's rear area. Principles of War must also be viewed through both perspectives.

Planning in support of The Commander's Estimate.

Thus far, the discussion has been about the theory, history and planning considerations applied to the notion of the strength of will. In each of the elements and principles of operational art, there has been two significant attributes: one concrete and one abstract. Although the significance of will has been explored, the discussion has not suggested how to adjust current planning procedures. The current planning procedure at the operational level is the Commander's Estimate of the Situation (CES). Broadly stated, the Commander's Estimate has a series of steps:

1. Mission Analysis
- 2a. Considerations Affecting Courses of Action
- 2b. Enemy Capabilities
- 2c. Own Courses of Action
3. Analysis of Opposing Courses of Action
4. Comparison of Courses of Action
5. Decision

Although this planning process is a logical comparison between enemy capabilities and friendly courses of action, it unilaterally conducts this procedure in physical, tangible, and concrete aspects of assessment. Relative combat power is described in the CES as a tabulation of force ratios, available for confrontation, measured in terms of effectiveness.²³ At the operational level, the objectives are always listed in physical terms. There are times in the process in which intangibles are analyzed, but only as a supporting role to the overall estimate. An example of this supporting role can be described under considerations affecting courses of action. Intangibles such as psychological ability, sociology, political stability, leadership, training etc. are only examined in their relationship to affect a particular course of action. i.e. measurement of effectiveness (MOE)

The commander needs an assessment of both factors of the power of resistance, not just the physical attributes of force. The solution to this dilemma is to conduct a parallel planning process. Instead of subordinating the role of intangible factors in the current CES, a parallel process could highlight both factors of resistance to the commander. Mission analysis and Commander's Intent would translate these considerations from both the concrete and abstract sense. A red team (physical strength) and a blue team (strength of will) could plan collectively along a parallel CES track. Emphasis should be placed on the term "collectively" as neither factor must be isolated from the other in the planning process. However, the two team concept is needed to accentuate each factor's importance in the planning process.

Clausewitz noted the strength of will could only be *"gauged approximately by the strength of the motive animating it."*²⁴ During a parallel planning process this motive could be assessed by the blue team as the red team conducts mission analysis. Motives could be determined; they are the objects influencing choice or prompting an action. This motive could be political, economic, social or religious and explained in terms of power, financial gain, social or religious ideal. At the operational level, motives could also be in relation to conflict at large. i.e. gain time, gain the initiative, etc.

Following the assessment of the motive, the blue team would proceed along intangible enemy capabilities to support the motive. Leadership, popular support, training, combat experience, fatigue can all be assessed in an approximate sense. The intangible center of gravity, along with intangible strengths and weakness would be assessed. The emphasis being that a deliberate analysis process would not be subordinate to the physical enemy capability.

Next, the friendly courses of action would be examined. Here, blue team would assess objectives and courses of action from an abstract perspective. Objectives that delineate strengths, weakness, and vulnerabilities to the opponent's intangible center of gravity would be assessed. Courses of action would also be described from an intangible sense. Examples would be to isolate, create command confusion, create unit disorder, support legitimacy, restraint of military action, or create overwhelming show of invincibility. Again, throughout the planning process, red and blue teams would work collectively through the CES.

In the end, the decision of the appropriate course of action rests with the Commander. The red/blue team concept is only a proposal. It would be an error not to recommend an alternative solution to the current unilateral approach to planning for two distinct factors. The aim of any effective staff planning process is to give the commander the tools he needs to make a sound decision towards a course of action. The red/blue team concept is proposed only to accentuate the importance of viewing objectives, courses of action, and elements of operational art, from both a physical and non-physical sense. Polarity of planning can be completed through our current process, but only if viewed through both a blue and red focus.

Conclusion

Military success demands the total assessment of the enemy's power of resistance. This power of resistance is the product of both the physical force and the strength of will. Commanders must demand that their staffs conduct an analysis of both factors. Evaluating the situation through both perspectives increases the chance of success. Although it is extremely difficult to gauge, balancing between physical force and the strength of will is a hypothetical

imperative to the planning process. Military planners should never be lulled into complacency by presuming physical force alone equates to combat power. It is possible to overpower the opponent's physical force, yet not defeat his power of resistance.

Operational concepts such as center of gravity, culminating point, schwerpunkt, and principles of war, must be viewed through both paradigms of force and will. Correct and complete assessment is needed by the commander to make any decision towards the appropriate course of action. Viewing these concepts from both perspectives allows for greater understanding of the strengths, weakness', and vulnerabilities of the opposition.

The current planning process must follow a collective, but parallel approach to developing the commander's estimate. The current unilateral process for evaluating the opponent's power of resistance subordinates the intangible aspects of leadership, training, esprit, and cohesion to that of physical force. Military planners must not fall victim to thinking only in concrete or tangible factors of combat power.

"War is a contest of wills. Combat power is the product of military forces and their will to fight. When will is lacking, so is combat power; when will is strong, it multiplies the effectiveness of military forces. Ultimately, the focus of all combat operations must be the enemy's will." ²⁵

ENDNOTES

1. Carl von Clausewitz, On War, Trans. Michael Howard and P. Paret, (Princeton, NJ: Princeton University Press 1984), p. 77.
2. Ibid, p. 75.
3. Sun Tzu, The Art of War, Trans. Samuel B. Griffith, (London, Oxford University Press 1963), p. 77.
4. Ibid, p. 79.
5. Joint Military Operations Department., Elements of Operational Warfare, unpublished draft material in NWC 4096 for the Naval War College, Newport, RI, August, 1996, Fig.2.
6. Steven T. Ross, European Diplomatic History 1789-1815, (Robert E. Krieger Publishing Company, INC., 1969) p. 277-281.
7. William S. Lind, Maneuver Warfare Handbook, (Boulder, CO., Westview Press Inc. 1985) p.17.
8. The author was the Commanding Officer of HQ Co., 6th Marines, in Desert Storm. 6th Marine Regiment conducted the breach of the Iraqi minefield for the 2d Marine Division. These views are his personal recollection before and during operations.
9. Ibid.
10. This is the author's personal view in respect to training focus for Marine Officers during the 1990's.
11. Clausewitz, On War, p. 595-596.
12. Ibid, p. 485.
13. Joint Pub 3-0, Doctrine for Joint Operations (Washington DC: US Government Printing Office, Feb. 1995) p.GL-4. "Those characteristics, capabilities, or localities from which a military force derives its freedom of action, physical strength, or will to fight."
14. FMFM 1-0, Warfighting (Washington DC: US Government Printing Office, 1993)
15. FM 100-5, Operations (Washington DC: US Government Printing Office, June 1993) p.6-7 "The center of Gravity is the hub of all power and movement upon which everything depends."

16. Joint Military Operations Department, "Elements of Operational Warfare," unpublished draft material in NWC 4096 for the US Naval War College, Newport, RI, Aug, 1996, p.7.
17. FM 100-5, Operations (Washington DC: US Government Printing Office, June 1993) p.G-2.
18. Clausewitz, p.231.
19. Genraloberst Lothar Rendulic, "The Command Decision," Unpublished manuscript prepared for Headquarters European Command, Office of Chief Historian, 1947. Quoted in The Art of Winning Wars, Col James Mrazek (New York: Walker and Company, 1958). p.177. This quote was taken in part from the "The Razor's Edge: identifying the operational culminating point", unpublished paper submitted to the Faculty of the Naval War College, Newport, RI, March 1996 p.11.
20. Liddell Hart, B.H. Strategy, (London, Faber and Faber Ltd. 1954) p.4 .
21. Clausewitz, p. 234.
22. Lind, William S. Maneuver Warfare Handbook, p. 18.
23. Rosenberg, Ralph G., "Relative Combat Power", (Military Review, US Army Command and General Staff College, March 78) p. 56.
24. Clausewitz, p.77.
25. FM 100-5, Operations, p.6-7.

Unpublished Papers

Hejlik, Dennis J. "Recognizing and Controlling the Culminating Point at the Operational Level of War", Unpublished research paper, Naval War College, Newport, RI, 17 May 1993.

Hoapili, Evan J. " Carl von Clausewitz: Hope and Fear", Unpublished research paper, Naval War College, Newport, RI, 13 Feb 1992 .

Joint Military Operations Department., "Elements of Operational Warfare", unpublished draft material in NWC 4096 for the Naval War College, Newport, RI, August, 1996.

Karle, A.J., "Operations across the spectrum of conflict- what suffers?", Unpublished research paper, Naval War College, Newport, RI, 16 June 1995 .

Webb, George S. "The razor's Edge: identifying the operational, culminating point" ,Unpublished research paper, Naval War College, Newport, RI, 9 March 1996.